

Application No. 09/588,462  
Response to 07/13/2004 final Action

Attorney's Docket No. 0119-076

**REMARKS****RECEIVED  
CENT. MAIL CENTER****JAN 11 2005**

Claims 1, 3-10, and 12-16 are pending.

In the final Office Action, as best understood, claims 1, 3-8, 10, and 12-16 were rejected under 35 U.S.C. § 102(b) for anticipation by U.S. Patent No. 5,570,423 to Walker et al. ("Walker '423") and claim 9 was rejected under 35 U.S.C. § 103(a) for obviousness over a combination of Walker '423 and U.S. Patent No. 5,796,819 to Romesburg ("Romesburg").

The Examiner's courtesy during the telephone interview with the undersigned on January 10, 2005, is gratefully acknowledged. During the interview, the specification and claims, in particular claim 1, the final Action, the anticipation rejections, and Walker '423 were discussed. Differences between Walker '423 and the claims were pointed out.

Claim 1, for example, defines a loudspeaker volume range control arrangement for a telephone having a loudspeaker, a microphone, and an echo cancellation system including an adaptive filter arrangement. The arrangement includes means for controlling a volume range of the loudspeaker in dependence on an estimated distance between the loudspeaker and the microphone, the distance being estimated based on adaptive filter arrangement coefficients derived from signals of the loudspeaker and microphone.

On page 6, the final Action contends that "Walker '423 uses acoustic signal propagation time  $t_{ak}$  to balance distance  $d_{ak}$  between loudspeaker and microphone, an unknown variable". This contention is not completely understood. As explained in Walker '423 at col. 4, ll. 44-52, the time  $t_{ak}$  and the distance  $d_{ak}$  are just the shortest propagation time and distance between a loudspeaker 1 and a microphone 2. According to col. 4, ll. 21-24, these parameters would seem to be set by the construction of the telephone terminal (see FIG. 2, reference numeral 31) and thus have little if anything to do with Applicants' claimed arrangement. Simply stated, Walker '423 does not describe estimating the distance between a loudspeaker and a microphone based on adaptive filter arrangement coefficients derived from signals of the loudspeaker and microphone, as defined in claim 1.

In addition, Walker '423 says nothing about loudspeaker volume range control. As best understood, the final Action's argument on this point appears to relate to an

Application No. 09/588,462  
Response to 07/13/2004 final Action

Attorney's Docket No. 0119-076

"amplification value", which is mentioned at col. 10, ll. 32-35, of Walker '423. It is important to recognize that this "amplification value" relates to the amount of amplification applied to signals received from the microphone 2, not to loudspeaker volume range. Walker '423 at col. 10, ll. 17-31 makes clear that it is the operation of a compander and the signals from the microphone that are being considered at that point. Walker '423's amplification value simply has nothing to do with loudspeaker volume range control.

To the extent that Walker '423 has anything to say about loudspeaker volume, it might be the passage at col. 8, ll. 51-61, which describes adjusting the local playback volume of a hands-free speaking system, e.g., a speakerphone. Nevertheless, this passage merely describes volume adjustment based on local noise measurement, and not on the basis of an estimated distance from the loudspeaker to the microphone.

As previously pointed out, Romesburg fails to remedy the deficiencies of Walker '423.

Accordingly, since Walker '423 and Romesburg fail to disclose (or suggest) all of the limitations of the pending claims for at least the above reasons, both the anticipation rejections of claims 1, 3-8, 10, and 12-16 and the obviousness rejection of claim 9 cannot stand.

Upon withdrawal of the rejections, this application will be in condition for allowance. An early Notice of same is respectfully solicited. If the Examiner has any questions, the undersigned attorney may be telephoned at the number given below. The Office's attention is drawn to a Power of Attorney to Prosecute Applications and a Change of Correspondence Address that accompany this Response.

Respectfully submitted,



Michael G. Savage  
Registration No. 32,596

Filed January 11, 2005

Potomac Patent Group PLLC  
P.O. Box 855  
McLean, VA 22101  
Tel: 919 677 9591